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ABSTRACT

This report presents background information and statistical data on the problem of infant mortality. Contents include (1) a discussion of the causes of infant mortality; (2) data on infant mortality and low birth weight; and (3) information on federal programs affecting maternal and child health. Data tables depict infant mortality in terms of urban, state, regional, national, and international norms; and indicate racial and sex differences. Data on low birth weight is specified according to education of mother and extent of prenatal care. Health programs discussed include: Medicaid, the Maternal and Child Health Services Block Grant; the Special Supplemental Food Program for Women, Infants, and Children; community health centers; migrant health centers; family planning; the Childhood Immunization Program; the National Institutes of Health Biomedical Research Program; and National Institute on Alcohol Abuse and Alcholism research activities. A glossary of terms used in the report is provided. (RH)

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INFANT MORTALITY

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A REPORT

PREPARED BY THE

CONGRESSIONAL RESEARCH SERVICE

FOR THE USE OF THE

SUBCOMMITTEE ON HEALTH AND THE ENVIRONMENT

AND THE

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE

COMMITTEE ON ENERGY AND COMMERCE

U.S. HOUSE OF REPRESENTATIVES

MARCH 1984

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LETTER OF TRANSMITTAL

House of Representatives
Subcommittee on Health
and the Environment
Subcommittee on Oversight and Investigations
Washington, D.C.
March, 1984

Hon. John D. Dingell,
Chairman, Committee on Energy and Commerce,
Washington, D.C.

Dear Mr. Chairman: The attached report prepared by the Congressional Research Service, at the request of the Subcommittee on Health and the Environment and the Subcommittee on Oversight and Investigations, contains background information and statistical data on the problem of infant mortality. This document represents a revision and expansion of a previous Committee Print on this subject issued in June, 1983.

We believe this report will be extremely helpful to the Members of the Energy and Commerce Committee in their understanding of the dimensions and causes of infant mortality. In particular, the report should be of great value as a resource document for the oversight hearing on this issue to be held by the two Subcommittees.

Henry A. Waxman
Chairman, Subcommittee on
Health and the Environment

John D. Dingell
Chairman, Subcommittee on
Oversight and Investigations

INTRODUCTION

There have been recent and disturbing reports that after years of progress, the steady decline in infant mortality rates may have slowed, and even been reversed, in some communities and social groups. While the Nation's overall infant mortality rate continues to decline, the infant mortality rate for Blacks remains roughly twice that for Whites, and there is some evidence that this appalling gap may be increasing. In addition, some data indicate that there has been an increase in births to women who have not received early prenatal care.

The recent recession and the cutbacks in Federal health care programs have contributed to these disturbing trends. While unemployment, as defined by the Bureau of Labor Statistics, is fortunately no longer as high as it was in the 1982-83 recession, it remains a serious problem, especially for those pregnant women who have lost their health insurance coverage due to job loss in their families. Cutbacks in health programs -- Medicaid, maternal and child health services, community health centers, and family planning -- have resulted in a reduction in the services that have helped to reduce infant mortality.

As a Nation, we cannot afford any setbacks in our fight against infant mortality. So much remains to be done. Our national infant mortality rate in 1982 (provisionally, 11.2 deaths per 1,000 live births) was the lowest in our history, but it is still higher than those of other industrialized nations, including Sweden, Japan, France, Spain, Canada and Singapore. The infant mortality rate for U.S. Blacks, or for any other group of Americans, simply cannot be allowed to remain so much higher than that of U.S. Whites.

The Nation's highest-ranking medical official, the Surgeon General, has issued a report setting forth specific policy objectives for the nation regarding health promotion. By 1990, the Surgeon General believes that no county and no racial or ethnic group should have an infant mortality rate in excess of 12 deaths per 1,000 live births. This is an attainable goal, yet we are in danger of failing to reach it if current infant mortality trends are not promptly identified and, where necessary, corrected.

INFANT MORTALITY

I. WHAT IS INFANT MORTALITY

Infant mortality is the death of a live born infant under one year of age, and is usually expressed as a rate per 1,000 live births. Neonatal deaths, or deaths of infants under 28 days account for about 70 percent of infant deaths. 1/ The first year of life is the most hazardous period until age 65. 2/ Major causes of infant mortality are low birth weight and birth defects.

II. CAUSES OF INFANT MORTALITY

A. Low Birth Weight

Approximately two-thirds of all infant deaths occur in infants weighing less than 5.5 pounds (2,500 grams) at birth. 3/ Low birth weight infants may be either premature, that is born before 37 weeks of gestation, or full term, but small for their gestational age. A number of factors contribute to low birth weight, including lack of or poor prenatal care, poor maternal nutrition, maternal age, bearing children at less than two year intervals, smoking and alcohol and drug use and abuse, and social and economic background.

Prenatal Care. Certain evidence indicates that a lack of prenatal care can contribute to women delivering

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1/ U.S. Congress. Senate. Labor and Human Resources Subcommittee on Child and Human Development. Oversight on Efforts to Reduce Infant Mortality and to Improve Pregnancy Outcome. Hearings, 96th Congress, 2nd session. June 30, 1980. Washington, U.S. Govt. Print. Off., 1980. p. 68.

2/ U.S. Department of Health, Education, and Welfare. Healthy People -- The Surgeon General's Report on Health Promotion and Disease Prevention. (Washington), 1979. p. 21.

3/ U.S. Congress. Senate. Labor and Human Resources Subcommittee on Child and Human Development. Oversight on Efforts to Reduce Infant Mortality and to Improve Pregnancy Outcome, 1980. p. 68.

low birth weight babies. 4/ Given no prenatal care, an expectant mother is three times more likely to deliver a low birth weight child. 5/ Prenatal care helps insure that (1) the expectant mother maintains good health and proper diet; (2) any medical or other problems are detected early and promptly managed; and (3) the expectant mother is educated about health care and nutrition during pregnancy, childbirth, and infant care. According to American College of Obstetricians and Gynecologists (ACOG) standards, a pregnant woman should begin prenatal care during the first trimester and ideally should be seen at least once every 4 weeks for the first 28 weeks of pregnancy, every 2 to 3 weeks until the 36th week, and weekly thereafter. Women with health problems should be seen more frequently. 6/

Partly because they are less likely to receive prenatal care, and often because of young age, unmarried women bear more low birth weight babies. Overall, in 1980, the incidence of low birth weight was twice as high for infants born out of wedlock (11.6 percent) than for other infants (5.8 percent). 7/

Maternal Nutrition. Although an undernourished mother may produce a healthy child, studies of nutrition of women during pregnancy have shown a definite relationship between the adequacy of the mother's diet during certain stages of pregnancy and the condition of the baby at birth. Fetal growth is affected by maternal food intake, as well as other changes that

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4/ A January 1983 report by the Michigan Public Health Department noted that in 1978, approximately 10,000 of the 140,000 women who gave birth that year received less than 5 prenatal visits. Of these women receiving less than 5 prenatal visits, 20.3 percent gave birth to low birth weight babies, compared to 5.7 percent for women receiving 6 or more prenatal visits.

5/ U.S. Department of Health and Human Services. Better Health for Our Children: A National Strategy. The Report of the Select Panel for the Promotion of Child Health, Vol. 1, 1981. p. 27.

6/ American College of Obstetricians - Gynecologists. Standards for Obstetric - Gynecologic Services, 1982. pp. 11-12.

7/ Unpublished data, National Center for Health Statistics, Public Health Service, Department of Health and Human Services, 1983.

occur in the mother during pregnancy. 8/ Infants born in a nutritionally deprived state may experience such health problems as brain growth retardation, and delayed bone calcification (the process by which the bone becomes hardened by the depositing of calcium salts). Infants that experience these nutrition-related problems often expend their energy on staying alive rather than on normal growth and development. 9/

Because they are eating for two, pregnant women must consume more than the amount of nutrients needed in the pregravid state (prior to pregnancy). Obviously, a pregnant woman's diet must include items from each of the traditional food groups of fruits/juices and vegetables; milk/cheese; meat/dry beans; and breads/cereals. An inadequate diet for a pregnant woman is usually low in certain significant food nutrients such as protein, calcium and iron, and may be missing one food group, such as milk, entirely. The number of servings and amounts a pregnant woman needs from each of these food groups varies depending on several factors such as the individual's age and weight. A pregnant teenager, who is still growing, most likely would need more servings from these food groups than a pregnant woman of 25.

Maternal Age. Maternal age is another determinant of infant health. Teenage mothers are twice as likely as other women to give birth to low birth weight babies. 10/ It is unclear why so many teenage mothers bear premature or low birth weight infants. It may be that a girl's reproductive organs may not be sufficiently mature to carry a baby without undue stress. A

8/ Hoekelman, Robert A., Saul Blatman, Philip A. Brunnel, Stanford B. Friedman, and Henry M. Seidel. Principles of Pediatrics. McGraw-Hill Book Company. (New York), 1978. p. 363.

9/ Michigan Department of Public Health. The Impact of Unemployment on the Health of Mothers and Children In Michigan, Recommendations for the Nation, January 1983. p. 17.

10/ U.S. Department of Health, Education and Welfare. Healthy People -- The Surgeon General's Report on Health Promotion and Disease Prevention. p. 25.

teenage mother is also less likely to have a balanced diet and regular prenatal care. 11/ Low birth weight is also increased for women giving birth after age 35.

Frequency of Giving Birth. Bearing children at frequent intervals, particularly at intervals of less than 2 years, can contribute to low birth weight, as well as other medical conditions which may adversely affect the health of mothers and children. These conditions include, among others, hemorrhage, and rupture of the uterus. 12/

Smoking and Alcohol and Drug Use and Abuse. Smoking, and alcohol and drug use and abuse during pregnancy can contribute to the infant's health status. Smoking slows fetal growth, doubles the chance of low birth weight, and increases the chance of stillbirth. According to some studies, smoking may be a significant contributing factor in 20 to 40 percent of low birth weight infants born in the United States and Canada. 13/ No safe levels exist for the intake of alcohol and most legal or illegal drugs during pregnancy. Certain evidence indicates that even small amounts of alcohol or drugs when ingested by pregnant women at critical points in the baby's development in utero can cause premature delivery, low birth weight, and serious illness or birth defects in infants. 14/

Social and Economic Background. Socioeconomic and racial factors also contribute to the incidence of low birth weight babies. More low birth weight babies are born to families of other races than to White families.

11/ U.S. Department of Health, Education, and Welfare. The Low Birth Weight Baby, May 1976. p. 3.

12/ Michigan Department of Public Health. The Impact of Unemployment on the Health of Mothers and Children in Michigan. Recommendations for the Nation. p. 17.

13/ U.S. Department of Health, Education, and Welfare. Healthy People -- The Surgeon General's Report on Health Promotion and Disease Prevention. pp. 24-25.

14/ Michigan Department of Public Health. The Impact of Unemployment on the Health of Mothers and Children In Michigan. Recommendations for the Nation. p. 18.

Twelve to fourteen percent of Black, Hispanic, and Native American births result in low birth weight babies but only 5 to 6 percent of White infants weigh less than 5.5 pounds. 15/ According to some studies, socioeconomic factors may have as much influence as race in determining an infant's birth weight. Certain reports indicate that the birth weight of middle income Blacks is comparable to middle income Whites. 16/

It has been suggested that the primary influence of socioeconomic status may be its impact on low birth weight, rather than as an independent determinant of infant mortality. 17/ One of the most useful measures of socioeconomic status is the mother's educational attainment. A 1980 Department of Health, Education, and Welfare study cited the mother's educational attainment as one of the most critical factors correlating with birth weight. 18/ In 1980, the proportion of infants of low birth weight born to mothers with 16 years or more of education was half that of infants born to mothers with less than 9 years of education. 19/

B. Birth Defects

About one sixth of all infant deaths are related to birth defects. These defects include congenital physical abnormalities, mental retardation, and genetic disorders. The congenital defects most likely to cause death include malformations of the brain and spine, heart defects, and combinations of other serious abnormalities. 20/ Although it is not always possible to

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15/ Ibid.

16/ Ibid.

17/ Hadley, Jack. More Medical Care, Better Health? Urban Institute Press. (Washington), 1982. p. 36.

18/ U.S. Department of Health, Education, and Welfare. Factors Associated with Low Birth Weight, United States, 1980. p. 2.

19/ Unpublished data, National Center for Health Statistics, Public Health Service, Department of Health and Human Services, 1983.

20/ U.S. Congress. Senate. Labor and Human Resources Subcommittee on Child and Human Development. Oversight on Efforts to Reduce Infant Mortality and to Improve Pregnancy Outcome, 1980. p. 69.

isolate the specific cause of a given birth defect, about one fourth of the cases are thought to be of genetic origin, while another 10 percent are attributed to environmental factors. In the majority of cases, the cause is unknown, but researchers suspect that the interaction between genetic and environmental factors plays an important role in the development of many congenital and prenatal problems. 21/

Although more than 2,000 genetic disorders exist, only about 20 cause the major genetic diseases in this country. Several major types of genetic disease are responsible for most illness and death. They are chromosomal aberrations (such as those responsible for Down's syndrome), some brain and spinal cord abnomalities (such as certain of the neural tube defects), defects related to particular ethnic groups, sex-linked defects, and metabolic disorders. 22/

Down's syndrome is associated with the presence of an extra chromosome, and occurs in about one of every 1,000 births. Children with Down's syndrome have various physical defects, some of which require lifelong care. 23/ Among the most frequent malformations associated with Down's syndrome is congenital heart disease. 24/ Also, 15 to 30 percent of children with severe mental retardation who live beyond age 10, suffer from Down's syndrome. 25/ The risk of bearing a Down's syndrome child increases with maternal age, especially after age 35.

Neural tube defects occur when there is a lack of development of parts of the central nervous system or its skeletal protection. These defects include spina

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21/ Ibid.

22/ Ibid. p. 71.

23/ U.S. Department of Health, Education, and Welfare. Healthy People -- The Surgeon General's Report on Health Promotion and Disease Prevention. p. 26.

24/ Hoekelman, Robert A., Saul Blatman, Philip A. Brunell, Stanford B. Friedman, and Henry M. Sudel. Principles of Pediatrics. p. 352.

25/ U.S. Congress. Senate. Labor and Human Resources Subcommittee on Child and Human Development. Oversight on Efforts to Reduce Infant Mortality and to Improve Pregnancy Outcome, 1980. p. 71.

bifida (literally, a "cleft spine"), various other malformations of the neural tube, and anencephaly (very small or absent head and brain). About 2 in every 1,000 infants suffer from these defects, half of whom die in the newborn period. These defects are 2.5 times more likely to occur in Whites than in other racial groups. 26/

Defects related to particular ethnic groups include Tay-Sachs disease, sickle cell anemia, and Cooley's anemia, among others. Tay-Sachs occurs most frequently among Jewish families of Eastern European descent. The disease is caused by accumulation of a fatty substance in the brain. Tay-Sachs children appear normal at birth, but die by age 5 as a result of severe mental retardation and progressive deterioration. 27/ Sickle cell anemia, in which red blood cells are damaged because of altered stability of their hemoglobin content, occurs most frequently among Blacks. 28/ Cooley's anemia, or thalassemia, also affects the hemoglobin molecule but in a different manner. The anemia is most common among Greeks, Italians or other individuals of Mediterranean descent. Another genetic disease, which is more prevalent in Whites is cystic fibrosis. This disease causes abnormal production of mucus, resulting in chronic lung obstruction and disability during childhood and early adult life. 29/

Sex-linked defects include such congenital disorders as some hemophilias and certain of the muscular dystrophies, which affect the sons of mothers who carry an abnormal X chromosome. Hemophilia results in blood clotting deficiencies. Muscular dystrophy results in gradual muscular weakness and wasting. 30/

26/ U.S. Department of Health, Education, and Welfare. Healthy People -- The Surgeon General's Report on Health Promotion and Disease Prevention. p. 26.

27/ Ibid.

28/ Ibid.

29/ U.S. Congress. Senate. Labor and Human Resources Subcommittee on Child and Human Development. Oversight on Efforts to Reduce Infant Mortality and to Improve Pregnancy Outcome, 1980. p. 72.

30/ U.S. Department of Health, Education and Welfare. Healthy People -- The Surgeon General's Report on Health Promotion and Disease Prevention. p. 27.

The best known metabolic disorder is PKU (phenylketonuria). This genetic disorder results in an enzyme deficiency which allows the amino acid phenylalanine to accumulate abnormally. As a result, without proper diet, brain function is impaired and mental retardation can occur. 31/

Exposure of the fetus to infections or toxic agents during pregnancy, particularly during the first trimester, can also cause birth defects. Infections such as rubella (German Measles) when they affect a mother during the first trimester, can cause congenital malformations as well as stillbirth and miscarriage. Exposure to radiation and chemicals in the workplace or other environments, as well as to drugs and alcohol have also been linked to birth defects. 32/

C. Other Factors

Other factors causing infant death include birth injuries, difficult labor, and conditions which may result in a lack of adequate oxygen for an infant. Sudden Infant Death Syndrome (SIDS), which causes certain babies, without apparent cause or warning, suddenly to stop breathing and die, can occur after an apparently uncomplicated pregnancy and birth. According to some authorities, SIDS is the leading cause of death for infants older than one month. 33/

31/ Ibid.
32/ Ibid. pp. 28-29.
33/ Ibid. pp. 29.

III. INFANT MORTALITY AND LOW BIRTH WEIGHT DATA

This section presents selected available data by:

1) State and region, according to race, for the three average annual periods 1968-70, 1973-75, 1978-80, and (provisional data) for 1980, 1981, 1982;

2) selected cities, according to race, for 1970, 1975, and 1980;

3) race for the total United States, 1940-1982, and by race or national origin for the total United States, 1970, 1975, 1980;

4) selected industrialized nations, 1970, 1975, and 1979/1980;

5) percent low birth weight by race for the United States and each State for three average annual periods 1968-70, 1973-75, and 1978-80; and

6) percent low birth weight, mother's educational attainment and use of prenatal services by race, for the years 1970, and 1975 through 1980.

A. Limitations on Data

The latest available final infant mortality data are for 1981. Because provisional data are collected for the individual States by place of occurrence, and the final data are calculated back to the place of residence of the mothers and infants, the two sets of data are not completely comparable. 34/ Another important consideration in analyzing infant mortality data is that rates can tend to vary greatly from year

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34/ Telephone conversation with Dr. Joel Kleinman, National Center for Health Statistics, Department of Health and Human Services, April 28, 1983.

to year, especially at the city and State levels. 35/ This is in part a function of the relatively small numbers of cases used to calculate both city and State rates. It is for this reason that State and city data are presented in terms of 3-year annual averages whenever possible. In this way, some of the random annual variations may be compensated for over time.

B. Trends in Infant Mortality

The overall trend in infant mortality rates over the past forty years has been downward, as illustrated in Figure 1. The data in this Figure represent the most recent available final infant mortality rates and are the same as the final rates presented in Table 4. However, Figure 1 has been updated with unpublished final rates up through 1981.

The downward trend in infant mortality rates can be divided into three distinct phases. During the first phase, 1940-1950, infant mortality rates declined steeply for both Blacks and Whites. Infant mortality rates stabilized during the second phase, 1950-1965, after which the rates began their declines to their present levels. In 1981, the most recent year for which final data are available, the overall infant mortality rate was 11.9 per 1000 live births. By race, infant mortality rates in 1981 were 10.5 for Whites and 20.0 for Blacks. Provisional data for 1982 and 1983 suggest that on a national basis, infant mortality rates are continuing to decline. The provisional total rate for 1982 is 11.2, and for the first eleven months of 1983 is 10.8. Provisional rates by race are not available for these two years.

Perhaps the most striking aspect of Figure 1 is that the infant mortality rate for Blacks has been consistantly higher than the rate for Whites. The Black infant mortality rate has stayed at slightly less than twice the White infant mortality rate over the past 40 years, despite the substantial decline in the overall rates.

The higher Black infant mortality rates may be at least partly responsible for the regional differences in

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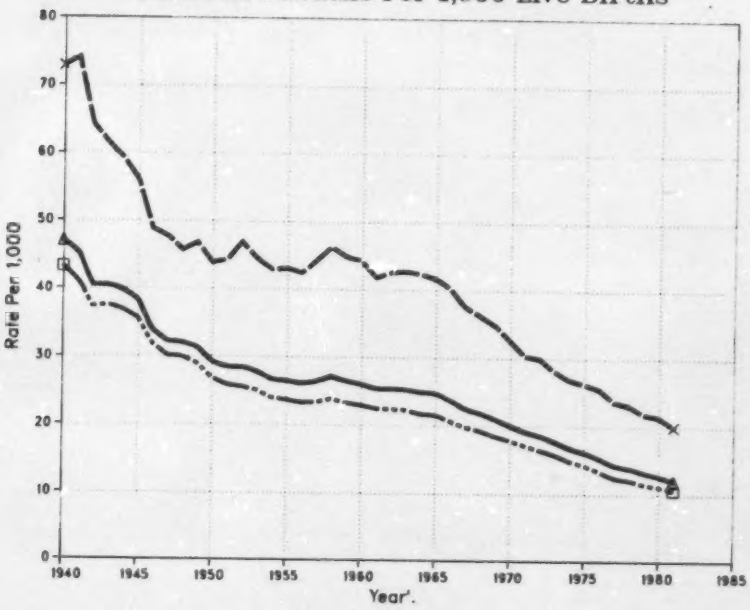
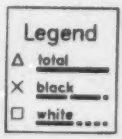
35/ Ibid.

Figure 1

INFANT MORTALITY RATES BY RACE
United States, 1940–1981
Rates Are Deaths Per 1,000 Live Births



Source: National Center for Health Statistics



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rates, as illustrated in Tables 1 and 2. For example, the South Atlantic and East South Central States have shown consistently higher total infant mortality rates, and they also have a higher proportion of Black infants.

The data for individual cities included in Table 3 do not necessarily reflect this regional trend. There is some evidence suggesting that Black infant mortality rates in these selected cities have declined at a faster rate than the infant mortality rates for Whites. Thus, in some large cities, the racial differences in infant mortality rates have narrowed.

International comparisons of selected infant mortality data are shown in Tables 5 and 6. The United States has consistently ranked in the low to middle range among 13 selected industrialized nations for the years presented.

The U.S. trends in incidence of low birth weight shown in Tables 7 and 8 have not shown as dramatic a decline as have the trends in total infant mortality. Although infants' weight at birth contributes significantly to their survival and health throughout infancy and early childhood, the greatly improved survival of low birth weight infants has reduced mortality rates more than morbidity rates.

C. Infant Mortality Rates By State, According to Race

As shown in Table 1, over the three average annual periods, 1968-70, 1973-75, and 1978-80, the total infant mortality rate steadily declined for all 50 States and the District of Columbia. The U.S. total infant mortality rate declined from 20.9 to 16.8 per 1,000 live births between the 1968-70 and 1973-75 periods (a 20 percent decrease) and from 16.8 to 13.1 per 1,000 live births between the 1973-75 and 1978-80 periods (a 22 percent decrease).

Over the same three periods the White infant mortality rate steadily declined as well, except for the District of Columbia's rate, which fluctuated. The U.S. White infant mortality rate declined from 18.4 to 14.9 per 1,000 live births between the first two periods (a 19 percent decrease), and from 15.7 to 11.9 per 1,000 live births between the last two periods (a 23 percent decrease).

The U.S. Black infant mortality rate steadily declined over these three average annual periods in 40

States and the District of Columbia. However, it steadily increased in one State, North Dakota, and fluctuated in nine others: Delaware, Idaho, Montana, New Hampshire, New Mexico, Rhode Island, South Dakota, Vermont and Wyoming. This evidence should be viewed with some caution. These ten States have relatively small populations of Blacks. Thus, the infant mortality rates for Blacks in these States have more natural random variation. The total U.S. Black infant mortality rate declined from 34.5 to 28.2 per 1,000 live births between the first two periods (a 22 percent decrease), and from 27.0 to 22.1 per 1,000 live births between the last two periods (a 18 percent decrease).

The most recent available data on infant mortality rates by State are displayed in Table 2. These data are averages of the provisional infant mortality rates for the years 1980, 1981 and 1982. Provisional data by race are not available for this interval.

A comparison of Table 1 and Table 2 shows that the overall average infant mortality rates increased in three States (Utah, North Dakota and Tennessee) and the District of Columbia, stayed the same in two States (Colorado and Missouri), and declined in the other forty-five States. In contrast, the data in Table 1 show consistent declines in the total average infant mortality rates by all fifty States and the District of Columbia among the three intervals displayed.

Table 1

Infant mortality rates, according to race, geographic division, and State: United States, average annual 1968-70, 1973-75, and 1978-80

(Data are based on the National Vital Statistics System)

Geographic division and State	1968-70[1]			1973-75			1978-80		
	Total[2]	White	Black	Total[2]	White	Black	Total[2]	White	Black
	Infant deaths per 1,000 live births								
United States	20.9	18.4	34.5	16.8	14.9	27.0	13.1	11.5	22.1
New England	18.8	18.1	34.4	14.7	14.1	25.9	11.0	10.5	19.9
Maine	20.9	20.9	*27.6	15.2	15.3	*5.8	9.8	9.9	*3.9
New Hampshire	19.1	19.1	*26.3	14.6	14.6	*28.7	10.3	10.3	*11.3
Vermont	19.1	19.1	*14.3	14.5	14.6	*-	10.9	10.9	*28.2
Massachusetts	18.3	17.7	33.1	14.2	13.7	24.3	10.8	10.4	17.7
Rhode Island	20.3	19.6	*37.7	15.8	15.3	*26.1	12.9	11.9	*29.2
Connecticut	18.3	16.8	32.1	15.2	13.7	27.8	11.6	10.3	21.3
Middle Atlantic	20.6	18.0	34.9	16.5	14.5	26.5	13.3	11.5	21.6
New York	20.5	17.8	33.9	16.4	14.3	25.7	13.4	11.5	20.9
New Jersey	20.3	17.2	35.2	15.9	13.5	26.4	12.8	10.4	22.4
Pennsylvania	21.0	18.8	37.1	16.8	15.2	28.7	13.4	12.1	22.5
East North Central	20.6	18.5	34.0	17.2	15.1	29.2	13.4	11.5	24.1
Ohio	19.4	17.9	31.0	16.4	15.0	26.7	13.0	11.6	21.7
Indiana	20.6	19.4	33.3	16.5	15.2	27.8	12.7	11.5	23.0
Illinois	22.4	19.2	36.7	19.3	16.1	31.8	15.2	12.2	26.6
Michigan	20.8	18.7	33.3	17.3	14.9	29.1	13.3	11.3	23.9
Wisconsin	17.9	17.1	31.9	14.0	13.6	21.8	10.7	10.3	17.6
West North Central	18.9	17.8	34.4	15.6	14.7	27.0	12.0	11.1	23.5
Minnesota	17.6	17.4	*28.5	14.4	14.1	*24.7	10.9	10.5	*23.3
Iowa	18.9	18.6	*38.0	14.5	14.3	*25.8	11.7	11.3	*24.1
Missouri	20.7	18.2	35.0	17.0	15.1	27.9	13.6	11.8	24.3
North Dakota	16.0	15.9	*4.4	16.1	15.5	*10.3	12.5	12.1	*13.3
South Dakota	19.8	18.1	*36.8	18.1	16.1	*39.2	11.8	10.2	*14.6
Nebraska	18.2	17.1	*36.7	15.1	14.4	*29.0	12.0	11.3	*25.5
Kansas	18.4	17.5	32.5	15.1	14.6	23.6	11.3	10.6	20.6
South Atlantic	23.1	18.7	34.8	18.6	15.5	26.8	15.0	12.0	22.5
Delaware	20.8	16.8	36.6	15.8	13.7	23.4	14.7	10.9	27.1
Maryland	20.1	16.8	31.9	16.0	14.1	22.2	14.4	11.7	21.5
District of Columbia	28.3	22.1	29.6	27.0	*22.8	27.9	24.8	*12.2	27.5
Virginia	21.8	18.2	35.0	17.5	15.1	26.7	14.0	12.0	20.9
West Virginia	23.1	22.6	*38.0	18.8	18.4	*29.7	13.6	13.3	*22.2
North Carolina	25.1	20.0	38.0	19.8	16.4	28.3	15.4	12.1	23.0
South Carolina	24.6	19.1	34.1	21.1	16.6	28.3	17.1	12.2	24.5
Georgia	23.3	18.0	35.0	18.5	14.9	25.5	15.0	11.4	21.5
Florida	22.7	18.6	35.5	18.0	14.7	28.1	14.5	12.0	22.0
East South Central	24.7	19.9	37.9	19.5	16.0	29.1	14.6	11.8	22.3
Kentucky	20.8	20.0	28.8	16.4	15.9	22.4	12.4	11.6	20.6
Tennessee	22.1	19.1	33.4	17.9	15.7	26.4	14.0	12.1	20.5
Alabama	25.7	20.1	37.3	20.7	16.3	29.2	15.2	11.7	21.7
Mississippi	31.9	21.1	43.4	23.8	16.1	32.4	17.7	11.5	24.5
West South Central	22.2	19.3	34.3	18.0	16.1	26.1	13.7	11.9	21.3
Arkansas	21.9	18.3	32.7	18.3	15.7	26.2	14.1	12.0	20.7
Louisiana	24.8	18.7	34.9	19.2	15.5	25.1	15.7	11.7	22.1
Oklahoma	20.6	19.8	31.7	16.6	16.2	26.0	13.1	12.4	20.6
Texas	21.7	19.5	34.5	17.8	16.3	26.9	13.1	11.8	20.9
Mountain	20.2	19.0	33.1	15.6	15.0	25.2	11.7	11.3	19.5
Montana	20.7	20.0	*26.9	17.1	16.9	*30.9	11.6	10.9	*-
Idaho	18.1	17.9	*25.9	15.1	15.0	*32.5	10.8	10.9	*16.7
Wyoming	22.8	21.8	*64.2	17.2	17.5	*8.4	11.9	11.8	*25.7
Colorado	20.3	19.9	*29.2	15.5	15.2	22.3	10.6	10.4	17.4
New Mexico	22.9	21.0	*35.1	18.4	17.5	*37.3	13.2	12.5	*20.7
Arizona	20.6	18.2	*33.0	15.0	13.8	*22.9	13.0	12.2	20.5
Utah	16.1	15.6	*35.9	12.7	12.3	*27.9	10.8	10.8	*22.5
Nevada	23.0	22.0	*36.3	18.9	18.0	*28.0	11.9	11.0	*21.2
Pacific	18.3	17.6	28.3	14.2	13.7	22.1	11.5	11.1	18.3
Washington	19.1	18.4	32.8	15.8	15.3	25.4	11.9	11.8	16.6
Oregon	17.7	17.5	*29.1	15.0	14.9	*25.5	11.9	11.9	*15.0
California	18.1	17.5	28.1	13.9	13.3	22.0	11.3	10.9	18.5
Alaska	21.0	17.0	*26.7	17.3	15.1	*26.5	14.2	12.0	*17.4
Hawaii	18.6	18.2	*21.6	14.0	13.7	*12.8	10.5	10.7	*12.4

[1] Includes births and infant deaths occurring to nonresidents of the United States.
[2] Includes all other races not shown separately.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

Table 2.

INFANT MORTALITY RANKS*
PROVISIONAL INFANT MORTALITY RATES ACCORDING TO STATE
UNITED STATES, AVERAGE ANNUAL 1980-1982**

Rank	1980-1982	Rates***
1	Wyoming	6.5
2	Idaho, Vermont	7.9
3	—	
4	Wisconsin	8.4
5	New Hampshire	8.7
6	Montana	9.1
7	Maine	9.2
8	South Dakota	9.3
9	Washington	9.6
10	New Mexico	9.7
11	Iowa, Kansas	9.8
12	—	
13	Minnesota	9.9
14	Hawaii	10.0
15	Massachusetts	10.3
16	California	10.5
17	Colorado	10.6
18	Nebraska	10.7
19	Arkansas, Connecticut	10.8
20	—	
21	Maryland	11.0
22	Ohio	11.1
23	Oklahoma, Utah	11.3
24	—	
25	Indiana, Pennsylvania	11.4
26	—	
27	New Jersey, Oregon	11.5
28	—	
29	Kentucky	11.6
30	Nevada	11.7

* A ranking of #1 indicates the lowest infant mortality rate.

** Provisional data by place of occurrence. Infant mortality rates are deaths under 1 year per 1,000 live births in a specified area.

*** These provisional average annual infant mortality rates are based on a simple average of the rates for each of the years 1980-1982. Final rates are determined by dividing the total number of infant deaths for the three year period by the total number of births.

Source: Compiled by the U.S. Department of Health and Human Services. Public Health Service. National Center for Health Statistics, May, 1983.

Table 2. (continued)

INFANT MORTALITY RANKS*
PROVISIONAL INFANT MORTALITY RATES ACCORDING TO STATE:
UNITED STATES, AVERAGE ANNUAL 1980-1982**

Rank	1980-1982	Rates***
31	Texas	11.8
32	Arizona	12.0
33	Rhode Island	12.2
34	Delaware	12.3
35	Michigan, Virginia	12.4
36	---	
37	Alaska	12.5
38	West Virginia	12.6
39	North Dakota	12.7
40	New York	13.0
41	Georgia	13.3
42	Florida	13.5
43	Missouri	13.6
44	Illinois	13.8
45	North Carolina	14.0
46	Louisiana, Tennessee	14.1
47	---	
48	Alabama	14.2
49	Mississippi	15.3
50	South Carolina	15.4
51	District of Columbia	25.9

* A ranking of #1 indicates the lowest infant mortality rate.

** Provisional data by place of occurrence. Infant mortality rates are deaths under 1 year per 1,000 live births in a specified area.

*** These provisional average annual infant mortality rates are based on a simple average of the rates for each of the years 1980-1982. Final rates are determined by dividing the total number of infant deaths for the three year period by the total number of births.

Source: Compiled by the U.S. Department of Health and Human Services. Public Health Service. National Center for Health Statistics, May, 1983.

D. By Selected Cities and Race

Tables 3a, 3b and 3c present infant mortality rates by rates for 26 cities whose populations were 500,000 or more in 1970. These are the cities for which the National Center for Health Statistics has collected data. As previously noted, infant mortality rates can vary substantially from year to year for small population groups due to natural random variation. Therefore, the rates presented in these three Tables have been averaged over three three-year intervals to stabilize the data. The three intervals are 1970-72, 1974-76 and 1978-80.

The trend in overall infant mortality rates in the 26 cities is downward over time. However, the rate of decline in infant mortality has been somewhat less than that observed for the U.S. in general. Based upon the midpoints of the year intervals in these three Tables, 1971 and 1979, the U.S. infant mortality rate declined by 31 percent (19.1 to 13.1). The rates of decline, between the first and last intervals in Table 3a, in overall infant mortality for the 26 cities, range from a low of 7 percent (Baltimore) to a high of 40 percent (San Diego). Only 5 of the 26 cities equal or exceed the national rate of decline, 14 fall in a range from 20 to 30 percent decline, and seven declined by less than 20 percent. In addition to the lower rate of decline, these cities also had higher infant mortality rates than the U.S. overall. Comparing the 1978-80 columns of Table 1 and 3a, it can be seen that only four cities (Denver, Milwaukee, San Diego and San Francisco) had infant mortality rates lower than the 13.1 U.S. rate for these years.

The city based infant mortality rates by race also display a different pattern than that observed in the national and State level data. Comparing the city level and national infant mortality rates for Whites for the years 1978-80 (Table 1 and 3b), it can be seen that only 5 of the 26 cities (Boston, Denver, Los Angeles, Milwaukee and San Diego) have lower rates then the 11.5 national rate for Whites.

On the other hand, comparing the infant mortality rates for all other races by city (Table 3c) to the 22.1 rate for Blacks (Table 1) for the 1978-80 interval, it can be seen that 17 of the 26 cities have lower infant mortality rates than Blacks nationally. This

comparison should be viewed with some caution. The "all other race" data in Table 3c include Oriental populations who historically have had the lowest infant mortality rates of any race or ethnic group in the U.S. Thus this comparison would not be totally valid for cities with substantial Oriental populations; for example, San Francisco. Even within this limitation however, the data seem to suggest that racial differences in infant mortality rates are less pronounced in these cities than in the U.S. overall.

Table 3a

TOTAL AVERAGE* INFANT MORTALITY RATES
FOR 26 CITIES OF 500,000 POPULATION**
FOR 1970-72, 1974-76, 1978-80
(Rates per 1,000 Live Births)

City	1970-72	1974-76	1978-80
Baltimore	23.65	23.00	22.00
Boston	22.19	17.50	15.03
Chicago	26.17	24.23	18.40
Cleveland	24.69	21.80	20.23
Columbus, Oh.	18.63	17.10	14.07
Dallas	21.64	18.13	15.47
Denver	17.03	14.07	11.33
Detroit	25.25	23.63	21.60
Houston	20.45	17.60	14.20
Indianapolis	20.88	16.73	14.83
Jacksonville, Fla.	19.92	17.00	15.00
Kansas City, Mo.	21.24	18.93	19.30
Los Angeles	18.56	14.07	13.20
Memphis	22.36	18.33	16.87
Milwaukee	18.46	14.93	12.13
New Orleans	25.82	21.60	21.10
New York	20.38	18.23	15.57
Philadelphia	24.01	22.20	18.73
Phoenix	16.19	16.40	14.40
Pittsburgh	23.73	19.93	17.60
St. Louis	25.80	24.97	20.63
San Antonio	19.17	13.50	13.77
San Diego	18.61	18.80	11.07
San Francisco	16.30	13.03	12.17
Seattle	18.16	14.67	13.60
Washington, D.C.	28.19	27.00	24.83

Source: Mortality Statistics Branch, Division of Vital Statistics, National Center for Health Satistics. Vital Statistics of the United States, v. II, Mortality. (Published and unpublished data.)

*Calculated as a simple arithmetic average of the rates for each of the three years in each interval.

**Population as of 1970

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Table 3b

WHITE AVERAGE* INFANT MORTALITY RATES FOR
26 CITIES OF 500,000 POPULATION**
FOR 1970-72, 1974-76, 1978-80
(Rates per 1,000 Live Births)

City	1970-72	1974-76	1978-80
Baltimore	18.17	20.13	19.50
Boston	18.64	16.23	11.23
Chicago	19.24	17.33	13.16
Cleveland	19.60	18.63	14.33
Columbus, Oh.	16.58	14.87	12.97
Dallas	17.66	14.97	12.10
Denver	17.06	13.66	10.67
Detroit	17.54	16.50	14.80
Houston	17.48	13.98	12.40
Indianapolis	18.45	14.40	12.30
Jacksonville, Fla.	16.59	13.03	11.97
Kansas City, Mo.	18.24	14.40	14.40
Los Angeles	15.47	11.87	11.13
Memphis	18.33	13.53	12.23
Milwaukee	16.13	12.40	9.73
New Orleans	21.57	15.00	13.77
New York	16.74	14.83	13.43
Philadelphia	17.77	17.40	15.30
Phoenix	14.92	15.63	13.57
Pittsburgh	17.58	15.20	12.43
St. Louis	18.11	19.00	12.77
San Antonio	18.27	12.73	13.07
San Diego	17.81	13.37	11.00
San Francisco	16.27	12.23	12.80
Seattle	15.58	13.60	11.87
Washington, D.C.	21.08	17.57	12.23

Source: Mortality Statistics Branch, Division of Vital Statistics, National Center for Health Statistics. Vital Statistics of the United States, v. II, Mortality. (Published and unpublished data.)

*Calculated as a simple arithmetic average of the rates for each of the three years in each interval.

**Population as of 1970

Table 3c

AVERAGE* INFANT MORTALITY RATES OF ALL OTHER RACES
FOR 26 CITIES OF 500,000 POPULATION**
FOR 1970-72, 1974-76, 1978-80
(Rates per 1,000 Live Births)

City	1970-72	1974-76	1978-80
Baltimore	27.43	24.60	23.23
Boston	30.79	19.50	20.23
Chicago	33.34	30.83	22.96
Cleveland	30.54	25.30	26.03
Columbus, Oh.	25.28	23.67	16.63
Dallas	28.94	23.10	20.70
Denver	16.86	21.33	14.10
Detroit	30.40	18.33	24.43
Houston	26.30	25.30	17.87
Indianapolis	28.57	23.33	21.50
Jacksonville, Fla.	28.10	25.67	20.97
Kansas City, Mo.	27.60	27.16	27.23
Los Angeles	26.34	19.97	18.67
Memphis	25.88	22.00	19.67
Milwaukee	25.19	20.47	16.53
New Orleans	28.51	24.20	23.80
New York	28.01	23.93	18.67
Philadelphia	30.39	27.47	21.73
Phoenix	26.97	22.50	19.40
Pittsburgh	36.47	28.83	27.57
St. Louis	32.13	28.80	25.90
San Antonio	29.91	22.16	21.33
San Diego	22.68	15.40	13.83
San Francisco	16.33	13.77	11.60
Seattle	27.48	17.66	17.70
Washington, D.C.	29.26	28.57	27.07

Source: Mortality Statistics Branch, Division of Vital Statistics, National Center for Health Statistics. Vital Statistics of the United States, v. II, Mortality. (Published and unpublished data.)

*Calculated as a simple arithmetic average of the rates for each of the three years in each interval.

**Population as of 1970

E. Infant Mortality by Sex, and Race or National Origin

As shown in Figure 1 and Table 4, the 40 year trend in U.S. infant mortality has been downward for both Blacks and Whites. However, the Black infant mortality rate remains nearly twice as high as the White rate.

As shown in Table 4a, Blacks have consistently had the highest infant mortality rates of races and population groups. Although Indian populations had the second highest rates, their rates were significantly lower than for Blacks. In 1970, the mortality rate for Indian males was 40 percent less than the rate for Black males. Indians maintained this 40 percent advantage through 1980.

Populations of Chinese and Japanese in the U.S. consistently have had the lowest rates of infant mortality. In 1980, the rates for these groups were about one half of the national rates.

Female infants have consistently lower infant mortality rates than males across all races. The only exceptions to this "rule" are for U.S. Chinese in 1980 and Japanese in 1975. However, these exceptions are based upon very small samples.

Table 4.
INFANT MORTALITY RATES BY RACE: UNITED STATES, 1940-82
(Rates are deaths under 1 year per 1,000 live births in specified group)

Year	Infant mortality rate		
	Total	White	Black
1982[1]	11.2	...	...
1981[1]	11.7	...	...
1980[1]	12.5	...	...
1979[2]	13.1	11.4	21.8
1978[2]	13.8	12.0	23.1
1977[2]	14.1	12.3	23.6
1976[2]	15.2	13.3	25.5
1975[2]	16.1	14.2	26.2
1974[2]	16.7	14.8	26.8
1973[2]	17.7	15.8	28.1
1972[2,3]	18.5	16.4	29.6
1971[2]	19.1	17.1	30.3
1970[2]	20.0	17.8	32.6
1969	20.9	18.4	34.8
1968	21.8	19.2	36.2
1967	22.4	19.7	37.5
1966	23.7	20.6	40.2
1965	24.7	21.5	41.7
1964	24.8	21.6	42.3
1963[4]	25.2	22.2	42.8
1962[4]	25.3	22.3	42.6
1961	25.3	22.4	41.8
1960	26.0	22.9	44.3
1959	26.4	23.2	44.8
1958	27.1	23.8	46.3
1957	25.3	23.3	44.2
1956	25.0	23.2	42.4
1955	26.8	23.6	43.1
1954	26.9	23.9	42.9
1953	27.8	25.0	44.5
1952	28.4	25.5	46.9
1951	28.4	25.8	44.3
1950	29.2	26.8	43.9
1949	31.3	28.9	46.8
1948	32.0	29.9	45.7
1947	32.2	30.1	47.7
1946	33.8	31.6	48.8
1945	38.3	35.6	56.2
1944	39.8	36.9	59.3
1943	40.4	37.5	61.5
1942	40.4	37.3	64.2
1941	45.3	41.2	74.1
1940	47.0	43.2	72.9

1 Provisional data.
2 Excludes deaths of nonresidents of the United States.
3 Deaths based on a 50-percent sample.
4 Figures by color exclude data for residents of New Jersey.

Source: National Center for Health Statistics, Division of Vital Statistics

Table 4a

INFANT DEATH RATES BY SPECIFIED RACE OR NATIONAL ORIGIN AND SEX: UNITED STATES, 1970, 1975 and 1980
(mortality rates per 1,000 live births in specified group)

	1970	1975	1980
Total/All races			
Both Sexes	20.0	16.1	12.6
Male	22.4	17.9	13.9
Female	17.5	14.2	11.2
White			
Male	20.0	15.9	12.3
Female	15.4	12.3	9.6
Black			
Male	36.2	28.3	23.3
Female	29.0	24.0	19.4
Indian 1/			
Male	23.0	20.1	14.1
Female	21.0	15.5	12.3
Chinese			
Male	9.8	4.7	4.7
Female	7.1	4.1	6.0
Japanese			
Male	13.0	6.7	4.9
Female	8.0	7.0	4.0
Other races			
Male	16.1	11.1	N/A
Female	13.4	8.3	

1/ Includes deaths among Aleuts and Eskimos.

Source: Adapted from U.S Department of Health, Education, and Welfare. Public Health Service. National Center for Health Statistics. Vital Statistics of the United States, 1970 (volume II -- Mortality, Part A, Table 2-3), and 1975 (volume II — Mortality, Part A, Table 2-3), and unpublished data for 1980.

F. By Selected Industrialized Nations

As shown in Table 5, infant mortality rates in certain developed countries are compared to each other. These are the countries for which such comparable data are readily available. The rates were obtained from civil registers. The U.S. infant mortality rate declined from 19.8 to 12.5 per 1000 live births between 1970 and 1979/1980, a 37 percent decline. However, out of 13 industrialized nations shown in Table 5 for the years 1970, 1975 and 1979/1980, the rank of the U.S. actually declined from ninth to tenth. Sweden, Norway, and Denmark have consistently ranked as the countries with the lowest infant mortality rates. The highest infant mortality rates among these nations have been found in Poland and Italy (see Table 6).

Table 5
INFANT MORTALITY RATES * 1/
SELECTED INDUSTRIALIZED NATIONS: 1970, 1975, 1979/1980

Country	1970	1975	1979/1980 2/
Austria	25.9	20.5	14.1
Canada 3/	18.8	14.3	11.9
Denmark	14.2	10.3	8.8
East Germany	18.5	15.9	12.1
France	18.2	13.8	9.9
Italy	29.6	22.2	14.3
Japan 4/	13.1	10.0	7.4
Norway 4/	12.8	11.1	8.8
Poland	33.2	24.9	21.2
Spain	27.9 5/ 6/	18.9	11.1
Sweden	11.0	8.6	6.7
United Kingdom (England, Wales)	18.1	16.0	12.2
United States	19.8	16.1	12.5
West Germany	23.6	19.8	13.5

*Infant deaths are deaths of live-born infants under one year of age; rates are per 1,000 live births.

1/ Statistics on the number of infant deaths were obtained from registers unless otherwise noted.

2/ Data for Canada is from 1978. Data for Denmark, Norway and West Germany refer to 1979. All other data refer to 1980.

3/ Includes Canadian residents temporarily in the United States, but excludes U.S. residents temporarily in Canada.

4/ Includes residents temporarily outside the country.

5/ Excludes deaths of infants dying before registration of births.

6/ Provisional data.

Source: 1970 - Demographic Yearbook 1972, United Nations, 1973.
1975, 1980 - Demographic Yearbook 1980, United Nations, 1982.

Table 6

INFANT MORTALITY RANKS*
SELECTED INDUSTRIALIZED NATIONS: 1970, 1975, and 1979/80

Rank**	1970	1975	1979/80
1	Sweden	Sweden	Sweden
2	Norway	Japan	Japan
3	Japan	Denmark	Denmark/Norway
4	Denmark	Norway	--
5	United Kingdom	France	France
6	France	Canada	Spain
7	East Germany	United Kingdom	Canada
8	Canada	East Germany	East Germany
9	United States	United States	United Kingdom
10	West Germany	Spain	United States
11	Austria	West Germany	West Germany
12	Spain	Austria	Austria
13	Italy	Italy	Italy
14	Poland	Poland	Poland

*A ranking of #1 indicates the lowest infant mortality rate.

**Calculated from Table 5

G. Percent Low Birth Weight By Race

Low birth weight is defined as infants weighing less than 2,500 grams or 5.5 pounds at birth. Low birth weight infants are considered to be very high risk infants and account for approximately two thirds of all infant deaths.

Table 7 displays the percent of infants weighing 2,500 grams or less by State and region. Three year averages are presented for three intervals. As with the infant mortality rates in Table 1, the overall percentages of low birth weight infants have declined for 49 States and the District of Columbia. Only South Dakota shows a slight fluctuation in its percentage. However, when compared to infant death rates, the decline in the percent of infants with low birth weights has not been dramatic. The total averaged infant death rates declined by 37 percent between the 1968-70 and 1978-80 intervals (Table 1). For the same intervals, the percent of births with low birth weight declined only 13.6 percent.

Also in Table 7, it can be seen that Blacks have much higher percentages of low birth weight infants than do Whites. In 1970, one third of all Black infants were born weighing less than 2,500 grams compared to less than one fifth of all White infants. The Black percentage of low birth weight infants has remained at twice the percentage for Whites from 1970 to 1980.

On a State-by-State basis, Whites have consistently lowered their percentages of low birth weight infants over the three intervals shown in Table 7. Only South Dakota varied from this pattern with a temporary increase between the 1968-70 and 1973-75 intervals. For Blacks, six States (Vermont, Wisconsin, North Dakota, South Dakota, New Mexico and Wyoming) showed consistent increases over the three intervals. Eighteen additional States show some fluctuations in their trends on this factor. Nine of these eighteen States had higher percentages of Black low birth weight infants in the 1978-80 interval than during the 1968-70 interval. These nine States are: Arizona, Alaska, California, Idaho, Iowa, Minnesota, Montana, Oklahoma and Oregon.

Table 8 presents trends on percent low birth weight, mother's education and use of prenatal care by race for the ten year interval 1970 through 1980. The

percent of infants with extreme low birth weight (less than 1,500 grams) has remained virtually constant for both Whites and Blacks. This percentage for Blacks is approximately two and one half times the percentage for Whites. The percent of low birth weight (less than 2,500 grams) infants declined by 16 percent for Whites but only by 10 percent for Blacks. Blacks made much greater and earlier use of prenatal care in 1980 than they had in 1970. However, even after these substantial gains, Blacks in 1980 used prenatal services less than Whites had in 1970.

H. Summary

The available data show that the U.S. overall infant mortality rate has been steadily declining since 1965, the same year the Medicaid program was enacted into law. Medicaid is the largest public source of funds which pay for medical care for low-income women and children. Provisional data for 1982 indicate that the rate was 11.2 deaths per 1,000 live births, the lowest infant mortality rate ever recorded in the United States. Many factors can effect pregnancy outcome. Several, including better nutrition, a decline in smoking, wider availability of prenatal care, advances in medical science, and improved socioeconomic conditions, have contributed to declines in infant mortality rates.

As noted earlier, the Black infant mortality rate remains nearly twice as high as the White infant mortality rate. Several possible factors thought to contribute to this higher rate are highlighted in a comprehensive 1979 DHEW report entitled, Health Status of Minorities and Low-Income Groups. 36/ The chapter on "Reproductive and Genetic Health" presents an analysis of White vs. Nonwhite (including minority races other than Black) maternal and infant morbidity and mortality.

36/ U.S. Department of Health, Education, and Welfare. Public Health Service. Health Resources Administration. Office of Health Resources Opportunity. Health Status of Minorities and Low-Income Groups. DHEW Publication No. (HRA) 79-627. Washington, U.S. Govt. Print. Off., 1979. 275 pages.

The report points to such factors as higher teenage birth rates, more out-of-wedlock births, poorer prenatal care, adverse pre- and postnatal environmental influences, and other socioeconomic, cultural, and racial/ethnic disparities as contributing to a higher proportion of low birth weight infants, and a correspondingly higher rate of infant morbidity and mortality among racial/ethnic minorities.

> Several physiological and sociological variables are correlated with the incidence of low birth weight. Gestation, birth order, prenatal care, maternal age, marriage status, and socioeconomic level are among the correlates. . . Since the rates for out of wedlock births and teenage fertility are higher among the racial/ethnic minorities, these groups are predisposed to low birth weight as a health problem. . . 37/

37/ Ibid. pp. 57-77.

Table 7

Infants weighing 2,500 grams or less at birth, according to race, geographic division, and State: United States, average annual 1968-70, 1973-75, and 1978-80

(Data are based on the National Vital Statistics System)

Geographic division and State	1968-70			1973-75			1978-80[3]		
	Total	White	All other[1]	Total[2]	White	Black	Total[2]	White	Black
	Infants weighing 2,500 grams or less at birth per 100 total live births								
United States	8.1	7.0	13.5	7.5	6.3	13.2	7.0	5.8	12.6
New England	7.7	7.3	13.8	6.8	6.5	12.2	6.3	5.9	11.9
Maine	7.3	7.3	*10.2	6.3	6.3	*6.5	5.7	5.7	*8.3
New Hampshire	6.9	6.9	*8.3	6.6	6.6	*8.0	5.6	5.6	*6.1
Vermont	7.6	7.6	*4.5	6.7	6.7	*8.0	6.1	6.1	*11.4
Massachusetts	7.6	7.3	13.0	6.9	6.6	11.6	6.2	5.8	11.2
Rhode Island	7.9	7.4	*16.7	6.8	6.5	*12.2	6.4	6.0	*12.1
Connecticut	8.0	7.2	14.4	7.0	6.3	13.0	6.9	6.0	12.8
Middle Atlantic	8.5	7.3	14.7	7.8	6.5	13.7	7.3	6.0	13.0
New York	8.8	7.5	14.4	8.0	6.7	13.4	7.6	6.2	12.8
New Jersey	8.4	7.1	14.8	7.9	6.5	14.1	7.3	5.8	13.2
Pennsylvania	8.0	7.0	15.6	7.4	6.4	14.2	6.7	5.7	13.4
East North Central	7.7	6.9	14.0	7.3	6.1	13.5	6.8	5.6	13.3
Ohio	7.7	6.8	14.1	7.3	6.4	13.3	6.8	5.8	13.1
Indiana	7.2	6.7	12.7	6.6	6.0	11.9	6.4	5.7	12.3
Illinois	8.3	6.8	14.3	7.8	6.2	14.0	7.3	5.6	13.7
Michigan	7.9	6.7	14.4	7.5	6.2	13.8	7.0	5.8	13.3
Wisconsin	6.8	6.3	11.9	6.0	5.6	12.6	5.5	5.0	12.6
West North Central	6.8	6.3	12.6	6.3	5.8	13.3	5.8	5.2	12.6
Minnesota	6.3	6.2	11.4	5.6	5.4	*13.0	5.2	5.0	*11.5
Iowa	6.0	5.9	*10.6	5.8	5.6	*12.7	5.1	4.9	*12.1
Missouri	7.7	6.6	13.7	7.3	6.1	13.6	6.8	5.6	13.0
North Dakota	5.9	5.9	*6.4	5.6	5.4	*7.9	5.1	4.9	*9.6
South Dakota	6.1	6.0	*7.5	6.3	6.0	*13.1	5.1	4.9	*13.2
Nebraska	6.7	6.4	*13.3	6.1	5.8	*12.4	5.7	5.3	*12.8
Kansas	7.1	6.6	13.0	6.4	5.9	12.7	6.2	5.6	12.1
South Atlantic	9.1	7.3	13.9	8.4	6.6	13.1	8.0	6.1	12.6
Delaware	8.6	6.8	15.3	7.7	6.2	13.3	7.5	5.6	13.9
Maryland	8.8	7.1	14.2	7.9	6.2	12.9	7.9	5.9	12.5
District of Columbia	13.4	8.4	14.3	13.1	*7.2	14.1	12.8	6.3	14.1
Virginia	8.6	7.1	13.7	7.7	6.3	12.5	7.4	5.9	12.0
West Virginia	8.2	7.9	*14.5	7.3	7.1	*11.9	6.8	6.5	*12.4
North Carolina	9.4	7.8	14.2	8.7	6.8	13.3	8.0	6.2	12.3
South Carolina	9.9	7.6	13.8	9.0	6.6	12.9	8.8	6.0	12.8
Georgia	9.3	7.2	13.9	9.1	6.8	13.4	8.6	6.3	12.7
Florida	8.7	7.1	13.3	8.1	6.5	13.0	7.7	6.1	12.3
East South Central	8.7	7.2	13.0	8.2	6.8	12.6	7.9	6.2	12.3
Kentucky	8.0	7.5	13.4	7.3	6.8	12.3	7.0	6.4	12.4
Tennessee	8.6	7.1	14.3	8.0	6.6	13.2	8.0	6.5	13.2
Alabama	9.0	7.2	12.7	8.5	6.4	12.5	8.1	5.9	12.1
Mississippi	9.5	6.8	12.3	9.1	6.2	12.4	8.7	5.9	11.9
West South Central	8.5	7.1	13.8	8.0	6.7	13.3	7.4	6.1	12.6
Arkansas	8.4	7.0	12.4	8.1	6.6	12.7	7.5	5.9	12.3
Louisiana	9.6	6.8	14.2	9.2	6.6	13.0	8.7	6.1	12.7
Oklahoma	7.9	7.3	11.5	7.5	7.0	14.0	6.8	6.2	12.4
Texas	8.2	7.1	14.3	7.7	6.6	13.5	7.1	6.1	12.7
Mountain	8.4	8.1	10.7	7.4	7.2	13.4	6.3	6.5	12.8
Montana	7.6	7.5	*8.6	7.0	6.9	*12.9	5.7	5.6	*9.5
Idaho	6.6	6.6	*7.6	6.0	5.9	*4.0	5.4	5.3	*9.2
Wyoming	9.2	9.0	*14.4	8.7	[illegible]	*15.5	7.5	7.4	*16.1
Colorado	9.9	9.6	15.0	9.1	8.8	15.2	8.2	7.9	14.7
New Mexico	9.4	9.4	9.5	8.8	8.8	*13.0	8.2	8.1	*13.6
Arizona	7.6	7.3	9.4	6.6	6.4	*11.4	6.1	5.9	11.3
Utah	6.7	6.6	*9.8	5.5	5.4	*20.3	5.4	5.4	*9.3
Nevada	9.7	9.1	*13.8	8.0	7.4	*13.5	7.1	6.4	*12.3
Pacific	7.0	6.4	10.8	6.3	5.6	11.9	5.9	5.3	11.3
Washington	6.7	6.4	10.9	6.0	5.7	10.8	5.3	5.0	10.1
Oregon	6.4	6.2	*10.7	5.7	5.5	*11.8	5.1	5.0	*10.8
California	7.1	6.4	11.3	6.3	5.6	12.0	6.1	5.4	11.5
Alaska	6.7	6.5	7.1	5.7	5.2	*10.5	5.5	5.0	*7.2
Hawaii	8.9	7.3	9.5	7.8	5.9	*7.5	7.1	5.8	*9.3

*Footnotes on following page.

[1]Data by birth weight for the black population not available for these years. In the Middle Atlantic, East North Central, South Atlantic, East South Central, and West South Central Divisions, more than 95 percent of the births in the "all other" racial category were black. However, in the Mountain and Pacific States, most of the births in the "all other" racial category were not black. Overall, 91 percent of the births in the "all other" racial category were black for the 3-year period. Based on more recent data, other than black infants of the "all other" racial category have a much lower low-birth-weight ratio than black infants. In fact, this other group's ratio is similar to the white ratio. Therefore, combining the black and other groups distorts the picture, making a trend difficult to interpret.
[2]Includes all other races not shown separately.
[3]For 1979 and later, data are for infants weighing less than 2,500 grams at birth.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

Table 8

Live births, according to race and selected characteristics: United States, selected years 1970-80

(Data are based on the National Vital Statistics System)

Race and selected characteristic	Year						
	1970	1975	1976	1977	1978	1979	1980
TOTAL[1]							
	Percent of live births						
Birth weight[2]							
2,500 grams or less	7.94	7.39	7.26	7.07	7.11	6.94	6.84
1,500 grams or less	1.17	1.16	1.15	1.13	1.17	1.15	1.15
Education of mother							
Less than 12 years	30.8	28.6	27.4	26.2	26.1	24.4	23.7
16 years or more	8.6	11.	12.1	12.6	13.1	13.7	14.0
Prenatal care began							
1st trimester	63.0	72.4	73.5	74.1	74.9	75.9	76.3
3rd trimester or no prenatal care	7.9	6.0	5.7	5.6	5.4	5.1	5.1
WHITE							
Birth weight[2]							
2,500 grams or less	6.84	6.26	6.13	5.93	5.94	5.80	5.70
1,500 grams or less	0.95	0.92	0.91	0.89	0.91	0.90	0.90
Education of mother							
Less than 12 years	27.0	25.0	23.9	22.9	23.4	21.3	20.7
16 years or more	9.5	12.7	13.5	14.0	14.4	15.2	15.6
Prenatal care began							
1st trimester	72.4	75.9	76.8	77.3	78.2	79.1	79.3
3rd trimester or no prenatal care	6.2	5.0	4.8	4.7	4.5	4.3	4.3
BLACK							
Birth weight[2]							
2,500 grams or less	13.86	13.09	12.97	12.79	12.85	12.55	12.49
1,500 grams or less	2.40	2.37	2.40	2.38	2.43	2.37	2.44
Education of mother							
Less than 12 years	51.0	45.1	43.3	41.0	38.5	37.7	36.2
16 years or more	2.8	4.4	4.8	5.2	5.7	5.9	6.3
Prenatal care began							
1st trimester	44.4	55.8	57.7	59.6	60.2	61.6	62.7
3rd trimester or no prenatal care	16.6	10.5	9.9	9.6	9.3	8.9	8.8

[1] Includes all other races not shown separately.
[2] Since some of the birth-weight figures are less than 1 percent, all figures for this category were carried to 2 decimal places. For 1979 and later, data are for infants weighing less than 2,500 grams at birth.

NOTE: Figures for 1970 are based on a 50-percent sample; for 1975-80, they are based on 100 percent of births in selected States and on a 50-percent sample of births in all other States. Percents are based only on records for which characteristic is stated.

SOURCE: National Center for Health Statistics: Vital Statistics of the United States, Vol. 1, for data years 1970-1977, Public Health Service, Washington, U.S. Government Printing Office; for 1978-1980, Public Health Service. To be published.

IV. MAJOR FEDERAL MATERNAL AND CHILD HEALTH PROGRAMS

A number of Federal programs provide health and related services to mothers and children. However, no Federal program is exclusively targeted to decreasing infant mortality in this country. Three major programs providing health and health-related services to children are Medicaid, the Maternal and Child Health Services Block Grant, and the Special Supplemental Food Program for Women, Infants and Children. Others include Community Health Centers, Migrant Health Centers, Family Planning, and Childhood Immunizations. In addition, the Federal Government conducts certain research activities related to infant mortality. Table 9 displays selected appropriations, authorizations and budget figures for these programs FY 1980 through the Administration's FY 1985 budget proposal.

A. Medicaid

The Medicaid program, authorized under title XIX of the Social Security Act, is a Federal-State entitlement program that purchases medical care for certain low-income persons. Within Federal guidelines, each State designs and administers its own program. Thus, substantial variation exists among the States in terms of persons covered, services offered, and amounts of payments for such services.

All States must provide Medicaid services to the "categorically needy". In general, these are persons receiving assistance from the Aid to Families with Dependent Children (AFDC) program or the Federal Supplemental Security Income (SSI) program, for the aged, blind, and disabled. States may also cover the "medically needy". These are persons who are aged, blind, disabled, or members of families with dependent children, and are unable to afford medical care, but whose incomes (after deducting incurred medical expenses) fall below the State medically needy standard. States having medically needy programs must, at a minimum, provide ambulatory services for children and prenatal and delivery services for pregnant women.

States are required to offer among others, the following services to categorically needy recipients under their Medicaid program: inpatient and outpatient

hospital services; laboratory and X-ray services; early and periodic screening, diagnosis, and treatment (EPSDT) for those under age 21; family planning services and supplies; physicians' services; rural health clinic services; and certified nurse midwife services. States may limit the amount, duration and scope of the services they offer (e.g., 14 hospital days per year, 3 physician visits per month). In addition, the States may impose nominal cost-sharing with certain major exceptions, including charges on children under age 18, pregnancy-related services, and family planning services and supplies.

The Federal Government is required to match whatever States spend for covered services to eligible persons. The Federal Government's share of Medicaid is tied to a formula which is inversely related to the per capita income of the States. Federal matching for services varies from 50 to 78 percent. Total FY 1984 Medicaid costs are estimated to be $37.9 billion (Federal - $20.3 billion; State - $17.6 billion). In 1984, Medicaid is expected to provide services to an estimated 11.1 million children under age 21.

Of the total Medicaid beneficiary population, 42 percent are children who consume only 12 percent of Medicaid payments to providers of care.

B. Maternal and Child Health Services Block Grant

The Maternal and Child Health (MCH) Services Block Grant, authorized under title V of the Social Security Act, provides health care services to mothers and children, including those with low income or with limited access to health services. The purposes of the block include, among others, reducing infant mortality, reducing the incidence of preventable disease and handicapping conditions among children, and increasing the availability of prenatal, delivery, and postpartum care to low-income mothers.

Eligibility criteria under the block may be set by the States themselves. States are allowed to charge for services provided; however, mothers and children whose incomes fall below the poverty level (currently $9,900 for a family of four) may not be charged for services.

States determine the services to be provided under the block. Services can include prenatal care, well-child clinics, immunizations, vision and hearing screening, dental care, and family planning. They may also include inpatient services for crippled children, screening for lead-based paint poisoning, or counseling services for parents of Sudden Infant Death Syndrome victims.

In FY 1984, 85 percent of the block grant appropriation is allotted among the States. Each State's individual allotment is based on the proportion of funds allotted to all States in FY 1981 for certain programs now included in the block. These programs are MCH and crippled children's services, supplemental security income services for disabled children, lead-based paint poisoning prevention, sudden infant death syndrome, and adolescent pregnancy. For each $4 in Federal funds States receive, they must spend $3 of their own funds.

A portion of the block's appropriation is reserved under a Federal set-aside. In FY 1984, 15 percent of this appropriation is reserved for MCH special projects of regional and national significance (such as Improved Pregnancy Outcome projects), research and training, and genetic disease and hemophilia programs. These programs are Federally administered.

The MCH Block Grant received $399 million in FY 1984. No data are available on the numbers of persons served by the MCH Block nationwide.

C. Special Supplemental Food Program for Women, Infants, and Children

The Special Supplemental Food Program for Women, Infants and Children (WIC) is authorized through FY 1984 under Section 17 of the Child Nutrition Act of 1966, as amended, and is administered by the Department of Agriculture (USDA). The program provides specified supplemental foods (in the form of actual food items, or vouchers for specific food items, redeemable at local grocery stores), certain diagnostic health services and nutrition education to participants.

Program participants are low-income pregnant and postpartum mothers, and infants and children through age 4 who are medically certified to be at risk because of inadequate nutrition or poor health or both. Income

standards may be set by State or local agencies operating programs; however, they may not be set higher than the reduced price school lunch income eligibility standards (i.e., 185 percent of the poverty level, currently $18,315 for a family of four), or lower than 100 percent of this poverty level ($9,900 for a family of four). By law, beneficiaries are to receive, at no cost, supplemental foods containing protein, iron, calcium, vitamin A and vitamin C. These foods are provided monthly and include milk, cheese, eggs, infant formula, cereals and fruit or vegetable juices.

The Federal Government awards grants to State Health Agencies or comparable agencies and to recognized Indian groups acting as State agencies to administer WIC programs. The States' funding formulas are published each year in the Federal Register. No State matching is required. WIC programs are operated mostly by local health departments.

In FY 1983, WIC expenditures are estimated at $1.1 billion. During FY 1983, the average monthly participation rate in WIC was 2,536,784 persons (541,691 women; 729,859 infants; and 1,265,234 children). There were 7,150 WIC clinics in operation in FY 1983.

Also administered by the USDA is the Commodity Supplemental Food Program (CSFP), a predecessor to the WIC program, which currently operates along side of, or in place of, WIC programs in 21 project areas. Persons may participate in one or the other of these programs, but may not participate in both. The CSFP program also provides food to pregnant and post-partum, low-income women, infants and children. However, the food items are commodities purchased in bulk by the USDA and shipped to warehouses operated by States or local operators. (WIC food items are usually purchased in local grocery stores with food vouchers issued by the local agency.) State and local agencies establish eligibility criteria which are based on nutritional risk and income. Income eligibility is to be set by existing food, health or welfare programs.

There were 25 CSFP projects in FY 1983 and regular program expenditures for the CSFP program are estimated at $33.4 million. The annual average monthly participation rate in these projects was 138,062 (25,930 women; 22,697 infants; and 89,436 children).

D. Other Programs

1. Community Health Centers

Section 330 of the Public Health Service (PHS) Act provides grants to public and nonprofit private entities to operate community health centers (CHCs). These centers provide comprehensive health services in low-income urban and rural communities or neighborhoods which have been designated as medically underserved areas. CHCs offer a range of primary health services on an ambulatory basis, including diagnostic, treatment, preventive, emergency, transportation, and preventive dental services; and can arrange and pay for hospital and other supplemental services in certain circumstances.

As of October 1, 1982, States could begin administering CHCs under the Primary Care Block Grant, authorized under Title XIX of the PHS Act. Only West Virginia and the Virgin Islands have taken the option to administer CHCs themselves. The Department of Health and Human Services continues to administer the program for the rest of the nation. In FY 1984, CHCs are receiving an appropriation of $337 million.

There are now about 590 rural and urban CHC grantees serving about 4.7 million medically underserved urban and rural residents. About 58 percent of the medical users of CHCs are women between the ages of 20 and 44 and children under age 15.

2. Migrant Health Centers

The migrant health centers program, under Section 329 of the PHS Act, provides grants to public and non-profit private agencies for the operation of health clinics for both migratory and resident seasonal farm workers living in communities which experience influxes of migrant workers. These centers offer primary health services. The program will receive $42 million in FY 1984. Migrant health centers, which number 137, will serve approximately 460,000 persons in FY 1984. An estimated 60 percent of the medical users of migrant health centers are women between the ages of 20 and 44 and children under age 15.

3. Family Planning

The family planning program, title X of the PHS Act, authorizes support for family planning clinics, training of family planning personnel, and development and dissemination of family planning and population growth information to all persons desiring such information. Most of title X's funding is awarded to public or nonprofit private agencies to operate family planning clinics. Services offered at these clinics typically include medical examinations, counseling, pregnancy tests, information and education activities, birth control, natural family planning, and infertility services. In FY 1984, the program will receive $140 million for 88 project grants to support directly approximately 4,500 clinics, as well as for training and information and education activities. Approximately 3.7 million persons will receive family planning services under the program in FY 1984.

4. Childhood Immunization Program

Section 317 (j) of the PHS Act provides grants for vaccine and personnel to State and local authorities to protect children against such preventable diseases as polio, measles, tetanus, and diptheria. Included among the program's activities is a special effort to inform new mothers, while they are still in the hospital, about the necessity of immunizing their infant, and where to go to have the infant immunized. Appropriations for the program totalled $30.4 million in FY 1984.

E. Research

1. National Institutes of Health (NIH) Biomedical Research Program

Title IV of the PHS Act provides for the establishment of the national research institutes which together make up the National Institutes of Health (NIH). Specifically, the National Institute of Child Health and Human Development (NICHD), authorized under Section 441, and the National Institute of General Medical Sciences (NIGMS), authorized under Section 442, support research

in areas related to maternal and infant health factors that may contribute to infant mortality. The NIGMS supports basic research studies to increase our knowledge and understanding of various genetic diseases, among other areas of research. The NICHD supports and conducts research efforts to improve the health and well-being of infants, children and adults. Much of the Institute's work focuses on increasing our understanding of normal human development, and includes the study of the reproductive sciences, pregnancy, labor, birth, prematurity, low birth weight, congenital defects, infant mortality, and maternal and child health in general. Other Institutes support research on such areas as infant heart, lung, or blood disorders, neurological problems, digestive diseases, maternal diabetes, and maternal and infant nutritional requirements.

2. National Institute on Alcohol Abuse and Alcoholism (NIAAA) Research Activities

Research activities related to alcoholism are authorized under Section 301 of the PHS Act and Section 504 of the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, as amended. The purpose of the NIAAA research program is to develop new knowledge relevant to the prevention of alcohol abuse and to the treatment of alcoholism and alcohol-related illnesses. NIAAA supports, among others, research projects which examine the effects of maternal drinking on the fetus. According to DHHS, between 1800 and 2400 babies are born every year in this country with Fetal Alcohol Syndrome (FAS), caused by maternal drinking during pregnancy. FAS is one of the leading causes of mental retardation and is responsible for a wide range of other severe and irreversible abnormalities. All FY 1984 research awards have not yet been made. In FY 1983, 21 research grants were related to fetal alcohol syndrome. Funding for these 21 grants amounted to $1.8 million.

Table 9
SELECTED MATERNAL AND CHILD HEALTH FEDERAL HEALTH AUTHORITIES
(dollars in millions)

Program	FY 1980 1/	FY 1981 1/	FY 1982 1/	FY 1983 1/	FY 1984 1/	% Change FY 1984 Compared to FY 1983	FY 1985 Constant Services Level (CSL) 2/	% Difference FY 1985 Budget Proposal Compared to FY 1985 (CSL)	FY 1984 Auth.	FY 1985 Admin. Budget Proposal
Primary Care Block										
CHCS	$320,000	$323,674	$281,217	$360,000	$337,000	-6.39	$484,449	.	$327,000	$333,400 3/
Subtotal	$320,000	$323,674	$281,217	$360,000	$337,000	-6.39	$484,449	10.10	$327,000	$533,400
MCH Block			$373,750	$478,000	$399,000	-16.53			$373,000	$407,300
STS formula grant	$345,500	$356,848								
Research-training	$30,843	$30,000					$523,034			
SSI-disabled chdrn	$19,836	$30,000					$46,693			
Lead-based paint	$11,784	$9,898					$30,030			
Genetic disease	$11,567	$13,165					$17,860			
Hemophilia	$3,000	$3,300					$17,511			
SIDS	$2,802	$2,802					$6,542			
Adolescent preg	$7,500	$8,400					$4,242			
Subtotal	$432,832	$454,393	$373,750	$478,000	$399,000	-16.53	$11,354			
							$655,266	-37.84	$373,000	$407,300
Immunization	$24,532	$24,132	$27,817	$27,428	$30,482	11.13	$34,876	-1.65	$34,500	$34,301
Migrant Health	$39,700	$43,223	$38,200	$38,104	$42,000	10.22	$60,102	-100.00	$51,000	$0 4/
Family Planning	$162,000	$161,671	$124,176	$124,088	$140,000	12.82	$245,252	-100.00	$134,200	$0 4/
WIC	$774,400	$945,780	$942,700	$1,184,400	$1,277,880	7.92	--	--	$1,126,000	$1,234,800
Medicaid										
Children under 21	$4,084,180	$3,986,700	$4,203,600	$4,538,880	$5,028,000	10.80	--	--	--	--
Adults in families with dependent children	$3,372,480	$3,738,600	$4,173,600	$4,627,000	$5,023,000	8.56	--	--	--	--

1/ Funds for Primary Care Block, MCH Block, Immunization, Migrant Health, and Family Planning are expressed as appropriations. FY 1980-FY 1984 funds for WIC are expressed as appropriations; they include previous year unspent funds used in the following fiscal year. FY 1984 appropriations for WIC are estimated. FY 1980-FY 1984 Medicaid funds are expressed as Vendor Payments. Fiscal Year 1983 and 1984 Medicaid Vendor Payments are estimates provided by the Health Care Financing Administration based on estimates of the proportion of total Medicaid Vendor Payments in FY 1982 spent on services for children under 21 and adults in families with dependent children, in 1982. Because the program funds shown in this table represent different categories of spending, the figures shown in these columns should not be added to reach a grand total.

2/ The Fiscal Year 1985 Constant Services Level, based on the FY 1980 appropriation assumes maintenance of real purchasing power. Inflators to the FY 1980 appropriation provided by the Congressional Budget Office.

3/ The FY 1985 budget request includes a proposal to expand the Primary Care Block Grant by three additional programs: migrant health centers, black lung clinics, and family planning. The expanded budget request for Primary Care reflects increased appropriations to fund those programs.

4/ Included in budget proposal for expanded Primary Care Block Grant.

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GLOSSARY

Bone calcification: the process by which bones become hardened by the depositing of calcium salts.

Congenital: referring to conditions that are present at birth, regardless of their causation.

Gestation: the period of development of the fetus from the time of fertilization of the egg until birth.

Infant mortality: death of a live born infant under one year of age; usually expressed as a rate per 1,000 live births.

In utero: within the uterus.

Low birth weight infant: an infant weighing 2,500 grams (5 pounds, 5 ounces) or less.

Miscarriage: loss of the products of conception from the uterus before the fetus is viable.

Neonatal death: the death of a live born infant before the first 28 days of life.

Perinatal death: death during the period shortly before and after birth (generally considered to begin with the completion of the 28th week of gestation, and to end one to four weeks after birth).

Premature infant: infants born usually after the 27th week and before full term; defined as an infant weighing 1,000 to 2,499 grams (2.2 to 5.5 pounds) at birth, and having a poor to good chance of survival, depending on the weight.

Prenatal: existing or occuring before birth, with reference to the fetus.

Stillbirth: the delivery of a dead child.

Sources: Dorland's Illustrated Medical Dictionary, 25th ed. W.B. Saunders. (Philadelphia), 1974.

U.S. Congress. House. Interstate and Foreign Commerce Subcommittee on Health and the Environment. A discursive Dictionary of Health Care. (Committee Print), Washington, U.S. Govt. Print. Off., Feb. 1976.